PROJECT REVIEW REPORT

This project review report includes findings raised during Verra's review of the project specified below. The VVB must address the findings before the project request can be considered for approval by Verra. The project review report will be made publicly available on the Verra Registry. Confidential information may be provided in separate attachments.

Project ID	4289
Project Name	BRASCARBON Methane Recovery Project BCA-BRA-19
Review Type	Verification Approval (01 January 2023 – 31 December 2023)
Program(s)	VCS Program
Project Proponent	Brascarbon Consultoria Projetos e Representacao S/A
Methodology	AMS-III.D: Methane recovery in animal manure management systems version 21.0
VVB	Colombian Institute for Technical Standards and Certification (ICONTEC)
Assessment Criteria	VCS Standard, v4.7
Date of First Issue	15 November 2024
Review Conclusion	[Approved]
Date of Final Issue	[10 July 2025]

FINDINGS

#	Finding Description	VVB Response	Status
1	**Missing/unclear information/assessment in the MR and verification report:**		
	Issue 1. The VVB rotation requirements outlined in Section 4.1.27 – 1 of the VCS Standard v4.7 have not been followed. 2. The project title is not correct in the cover page of the MR. 3. The project start date does not describe how GHG emission reductions begun as defined by the VCS standard. The start date is also reported differently as 02/01/2022 in Sections 1.1 and 3.1 of the MR. 4. The period and number of years columns of the validation row of the audit history table has not included in the Section 1.2 of the MR as required by the relevant MR template. 5. The level of assurance has not been included in the Section 1.3 of the Verification Report as required by the relevant report template. 6. The details of the registries and GHG programmes checked regarding the double counting have not been provided in the Section 4.1 of the Verification Report. 7. The details of the reviewed documents have not been included in Appendix 3 of the Verification Report including the date and version numbers, where applicable. (e.g. Technical and manufacturer specifications, Sampling plan Operational Procedure: POP-14, POP 02 – Operational Procedure: POP – 2, Installation records etc.) Action Required 1. The validation and initial verification (joint validation and verification) and second verification shall be handled by the different VVBs. The VVB/PP has not been granted an exemption to the rule. 2. The VVB shall ensure that the project title shall be provided	**Round 1** VVB Response 1. Icontec considered it appropriate to accept the Project for this verification because it was understood to be the first individual verification after the validation. However, due to an oversight, we failed to recognize that Section 4.1.27.1 of the VCS standard stipulates that the rotation of the VVB is required starting from the subsequent verification, whether or not it was independent of the validation. We are now aware of the mistake made; however, we would like to explain that, considering Icontec's principles of transparency and seriousness in our work, and in accordance with the Validation and Verification Manual of the standard, Verra requires us to provide a reasonable level of assurance in the validation and verification that the GHG assertions are free from material errors, omissions, and misrepresentations. We guarantee that there are no material errors. Therefore, this subsequent verification visit allows us to confirm compliance with Verra's standard and the implemented GHG methodology (Section 3.3.1.1) based on the results of a risk assessment. We understand, therefore, that this project should not be verified by ICONTEC until after 2027 (if Brascarbon so decides), in accordance with Section 4.1.27.2, a measure that corresponds to the compliance with VCS Standard v.7 regarding the Rotation of	[Closed]

	correctly in the cover page of the MR. 3. The VVB shall ensure that the project start date is reported in line with requirements, and consistently throughout the documents. 4. The VVB shall ensure that the period and number of years columns of the validation row of the audit history table has been included in the Section 1.2 of the MR as required by the relevant MR template. 5. The VVB shall include the level of assurance in the Section 1.3 of the Verification Report as required by the relevant report template. 6. The VVB shall include the details of the registries and GHG programmes regarding the double counting assessment in the Section 4.1 of the Verification Report. 7. The VVB shall include the details of all reviewed documents in the Appendix 3 of the Verification Report including the date and version numbers, where applicable. <u>Program Rule(s)</u> VCS Standard version 4.7 Section 4.1.27-1 VCS Monitoring Report Template Version 4.4 Sections 1.1, 1.12 and 3.1 VCS Verification Report Template Version 4.4 Sections 2.1, 4.1 and Appendix 3	Validation/Verification Bodies: "...2) A validation/verification body shall not verify more than six consecutive years of a project's GHG emission reductions or carbon dioxide removals. The validation/verification body may undertake further verification for the project only when at least three years of the project's reductions or removals have been verified by a different validation/verification body..." 2. The PP corrected the project title in version 3 of the MR. 3. The PP made the correction in sections 1.1 and 3.1 of the new version of the monitoring report. 4. The PP corrected the aspects mentioned in the monitoring report template in section 1.2 of the MR. The columns for the period and number of years from the validation row in the audit history table have not been included in section 1.2 of the MR, as required by the relevant MR template. 5. In the verification report, the relevant information in section 1.3 was completed and corrected, 6. The paragraph was corrected. We apologize as some important paragraphs explaining the absence of double counting may have been omitted in the English translation. Please refer to VR v.3. 7. In Appendix 3, the information has been sufficiently identified. In any case, it has been supplemented in areas where the suggestion was deemed applicable. The information was reviewed and completed accordingly. Please see the following documents: • ER Calculation MR02 - BCA-BRA-19_v3.xls • VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf • VCS MR Project ID 4289 01012023-31122023_v3 tc.pdf	

		• VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf Verra Response 1. The rotation rules have not been followed. The registration request will be denied if an exemption request by the PP is not granted with sufficient justification 2. The project title has been duly corrected 3. The project start date is now reported consistently as 05 January 2022. The Verification Report remains correct. 4. The validated period is now corrected 5. The level of assurance is now included 6. Further information is included on how double counting was assessed and registries checked. 7. The list of reviewed documents is now updated in Appendix 3 of the verification report **Round 2** VVB Response 1. Regarding the rotation rules, in addition to the statement provided by Icontec in Round 1, Brascarbon sent an email and a formal response regarding the related situation on November 21, 2024. Verra acknowledged receipt on November 21 and responded via email and formal communication on November 28, 2024. The communication and Verra's response, addressed to Brascarbon with a copy to Icontec, mention "response to the exemption requested for project 4289 - Brascarbon Methane Recovery Project BCA-BRA-19", and state that "the exemption has been granted, and Verra's approval letter has been uploaded to the Registry." Please see the following documents: - Exemption Request 4289.pdf - 4289_VCS_EXEMPTION_APPROVED_28 November 2024.pdf	

		Verra Response The exemption was approved and therefore no further action is required	

#	Finding Description	VVB Response	Status
2	Applied methodology and associated tools:		
	Issue 1. The applied tools and versions have not been included in the Section 1.9 of the MR, as required by the applied VCS-MR template v4.4. Action Required 1. The VVB shall ensure that the applied tools have been included in the Section 1.9 of the MR. Program Rule(s) VCS Monitoring Report Template Version 4.4 Section 1.9	**Round 1** VVB Response The PP made the correction and supplemented the information in MR v.3 regarding the tools, as required by the VCS MR v4.4 template applied.1 Please see the following document: • VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf	[Closed]
		Verra Response The applied tools and their versions have been included in Section 1.9 of the MR. The VR is updated accordingly	
		Round 2	
		VVB Response	
		Verra Response	

#	Finding Description	VVB Response	Status
3	**Sustainable development contributions:**		
	Issue 1. The sustainable development contributions through Table 1 have not been included in the Section 1.12 of the MR as required by the applied MR template. 2. The relevant SDG targets and indicators have not been included in the Section 1.12 of the MR. 3. The detailed assessment of the sustainable development contributions of the project for the current monitoring period has not been included in the Section 4.1 of the Verification Report. Action Required 1. The VVB shall ensure that the sustainable development contributions through Table 1 have been included in the Section 1.12 of the MR as required by the relevant MR template. 2. The VVB shall ensure that the relevant SDG targets and indicators have been included in the Section 1.12 of the MR. 3. The VVB shall include its detailed assessment about the sustainable development contributions of the project for the current monitoring period in the Section 4.1 of the Verification Report. Program Rule(s) VCS Monitoring Report Template Version 4.4 Section 1.12 VCS Verification Report Template Version 4.4 Section 4.1	**Round 1** VVB Response 1. The PP developed the sustainable development contributions through Table 1 in Section 1.12 of the MR in accordance with the MR template. 2. The relevant SDG goals and indicators were included in MR v.3. 3. The detailed evaluation of the project's contributions to sustainable development during the current monitoring period has been included in Section 4.1 of the Verification Report. Please see the following documents: VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf Verra Response 1. The revised MR contains 5 SDGs and their indicators. The VVB must ensure indicator 13.2 is also included and that only relevant SDGs are listed in line with the SDGs outlined in the registered Joint PD-MR. 2. The relevant SDG targets and indicators have now been included in the Section 1.12 of the MR 3. The VVB shall include detailed assessments in line with the PP's MR revisions **Round 2** VVB Response 1.The PP complemented the SDGs in the Monitoring Report, and Indicator 13.2 was included in accordance with the commitments made by the country.	[Closed]

		3.The VVB confirms the proper adjustments made by the PP, and the corresponding modifications were also made in the verification report, considering the changes implemented by the PP. Please see the following documents: • VCS MR Project ID 4289 01012023-31122023_v4 clean.pdf • VCS VerR Project ID 4289 01012023-31122023 v.4 clean.pdf	
		Verra Response 1. The VVB shall ensure the PP updates Table 1 to correctly demonstrate SDG contributions in the current monitoring period (Column: Current project contributions) and the total contributions of the project as reported from the first monitoring period to the current monitoring period (Column: Contributions over project lifetime). Actual values shall be included. 3. The VVB shall include the updates and assessments in the verification report	
		Round 2	
		VVB Response 1. The Project Proponent has updated Table 1 in the Monitoring Report (MR) to accurately reflect the current contributions to the Sustainable Development Goals (SDGs) during this monitoring period, as well as the cumulative contributions since the first monitoring period. Actual values have been included in the relevant columns	

		(Current project contributions and Contributions over project lifetime). 3. The VVB has included in the Verification Report (VR) the updates made by the Project Proponent to Table 1, as well as the corresponding assessment, in accordance with the requirement. Please see the following documents: • VCS MR Project ID 4289 01012023-31122023_v4 clean.pdf • VCS VerR Project ID 4289 01012023-31122023 v.4 clean.pdf	
		<u>Verra Response</u> 1. Completed and no further action is required 3. Completed and no further action is required	

#	Finding Description	VVB Response	Status
4	**Missing information about the local stakeholder consultation of the project:**		
	<u>Issue</u> 1. The ongoing communication channels have not been identified in the Section 2.1.2 of the MR. 2. The procedure to be followed in case of any grievance by the relevant stakeholders has not been included in Section 2.1.2 of the MR. 3. The assessment of effectiveness of the grievance mechanism has not been included in the Section 4.2.2 of the Verification Report. 4. It is not clear in the Section 2.4 of the Verification Report how it is ensured that the project is operational for 365 days (nd_y) for each of the 10 farms without a physical VVB site visit. <u>Action Required</u>	**Round 1** <u>VVB Response</u> 1. The PP complements and clarifies the information requested in section 2.1.2 of MR v.3. 2. The procedure to follow in the event of a complaint was included in section 2.1.2 of MR v.3. 3. The complaint mechanism evaluation system is described in section 4.2.2 of the verification report. 4. The VVB explains the conditions considered to ensure the verification of project sites through remote auditing and the reasons in accordance with the standard in VR v.3.	[Closed]

	1. The VVB shall ensure that the ongoing communication channels have been identified in the Section 2.1.2 of the MR. 2. The VVB shall ensure that the procedure to be followed in case of any grievance by the relevant stakeholders has been identified in the Section 2.1.2 of the MR. 3. The VVB shall include the assessment of effectiveness of the grievance mechanism in the Section 4.2.2 of the Verification Report. 4. . The VVB shall explain in detail in the Section 2.4 of the Verification Report how it is ensured that the project is operational for 365 days (nd_y) for each of the 10 farms without any on-site visit. Program Rule(s) VCS Monitoring Report Template Version 4.4 Section 2.1.2 VCS Verification Report Template Version 4.4 Sections 2.3 & 2.4 and 4.2.2	Please refer to the following documents: • ER Calculation MR02 - BCA-BRA-19_v3.xls • VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf • VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf Verra Response 1. Means of ongoing communications with relevant stakeholders has now been included in Section 2.1.2 of the VCS MR. The VVB has revised the VR Section 4.2.2. 2. Grievance procedure has been included in Section 2.1.2 and assessed in Section 4.2.2 of the VCS VR 3. The VVB has made further assessment of the appropriateness of the grievance procedure 4. The VVB has made further explanations on how it received information and assessed the operations of the 10 farms in the project boundary. **Round 2** VVB Response Verra Response	

#	Finding Description	VVB Response	Status
6	**Baseline, project and leakage emissions and emission reductions:**		
	Issue 1. The calculation details of $NL_{T,y}$ parameter have not been demonstrated in the BE_y ex-post - PEy ex-post Excel Spreadsheet. Only manually inserted. 2. The value of parameter W_{site} for Boars has is incorrect in the L5 cell of Comparison W_{site} Excel Spreadsheet as referred in the registered PD. Further, there is no Annex 3 in the	**Round 1** VVB Response 1. The details of the calculation \($NL_{T,y}$\) Annual average number of animals of type “LT” in year “y” (numbers)) were presented in the working documents and detailed databases by month, site, and year. In the final CER, the results of the averages can be found in forms 03.001 to 03.003 per site, named CONTAGEM DE	[Closed]

	registered Joint PD-MR. 3. The average W_{site} values for January 2023 regarding the monitoring period have not been included in the Comparison W_{site} Excel Spreadsheet. 4. The justification for the difference between the ex-ante and ex-post values in Section 5.4 of the MR is not clear. 5. The assessment details of no grid electricity consumption of the project activity have not been included in the Section 4.4 of the Verification Report. 6. The emission reduction value is not correct in the Section 1.3 of the Verification Report. 7. The ex-ante and ex-post values in Section 5.3 of the verification report are not consistent with the ER Calculation Excel Spreadsheet. 8. The assessment details of the accuracy and conservativeness of the used forms by PP (e.g. forms form 03.001, form 03.003, form 04.001, form 01.001 etc.) have not been included in the Section 4.4 and Appendix 5 of the Verification Report. 9. The equations 1 and 1.1 have not been included fully and correctly in the Section 5.4 of the MR as referred in the registered PD. 10. The equation of MD_y (equation 1.2) has not been included in the Section 5.4 of the MR as referred in the registered PD. 11. The round down function has not been applied for baseline emissions in the BEy ex-post - PEy ex-post and ERy ex-post Excel spreadsheets. 12. The round up function has not been applied for project emissions in the BEy ex-post - PEy ex-post and ERy ex-post Excel spreadsheets. <u>Action Required</u>	ANIMAIS POR FASE DE CRIAÇÃO - NT, and based on POP 03. This information is referenced in the database provided by Brascarbon to Icontec and cited in the VR appendix 3 references. 2. The PP addressed the items identified as findings in the spreadsheet named Comparison W_{site}. 3. The PP corrected the requested adjustments regarding the average W_{site} for January 2023 in the Excel comparison spreadsheet for W_{site}. 4. The justification for the difference between the ex-ante and ex-post values was adjusted in section 5.4 of the MR. 5. The energy source used at each of the project sites is based on solar panels—self-sufficient and sustainable. This has been mentioned in the project description both in the Monitoring Report (MR) and in the Verification Report (VR). This was added as requested in section 4.4 of the VR. 6. The emission reduction value in section 1.3 of the VR was corrected. 7. The ex-post values in section 5.3 of the VR were adjusted according to ER and MR v.3. 8. Comments were added in section 4.4 of the VR, reiterating what is mentioned in Appendix 5 of the verification report. 9.The equations related to emission reductions and their development, as presented in section 5.4 of the MR v.3, were adjusted in accordance with the PD-MR /1/. 10. The equation for MDy (equation 1.2) was included in section 5.4 of the MR, as referenced in the registered PD.	

	1. The VVB shall ensure that the calculation details of NLT,y parameter have been included in the BEy ex-post - PEy ex-post Excel Spreadsheet. 2. The VVB shall ensure that the weight of boars is corrected the Cell L5. 3. The VVB shall ensure that PP includes the average W_{site} values for January 2023 in the Comparison Wsite Excel Spreadsheet. 4. The VVB shall ensure that the explanation provided for the difference between the actual and ex-ante ER values is sufficient. 5. The VVB shall include the assessment details of no grid electricity consumption of the project activity in the Section 4.4 of the Verification Report. 6. The VVB shall include the emission reduction value correctly in the Section 1.3 of the Verification Report. 7. The VVB shall include the ex-ante and ex-post values in the Section 5.3 of the Verification Report in line with the relevant ER Calculation Excel Spreadsheet. 8. The VVB shall include the assessment details about the accuracy and conservativeness of the used forms by PP (e.g. forms form 03.001, form 03.003, form 04.001, form 01.001 etc.) in the Section 4.4 and Appendix 5 of the Verification Report. 9. The VVB shall ensure that the equations 1 and 1.1 have been corrected in Section 5.4 of the MR in line with the registered Joint PD-MR. 10. The VVB shall ensure that the equation of MDy (equation 1.2) has been included in the Section 5.4 of the MR as referred in the registered PD. 11. The VVB shall ensure that the round down function has been applied for baseline emissions in the BEy ex-post - PEy ex-post and ERy ex-post Excel spreadsheets.	11 And 12. The PP made the necessary adjustments in the spreadsheets for BEy ex-post - PEy ex-post and ERy ex-post, and the rounding function was applied. Please review the following documents: ER Calculation MR02 - BCA-BRA-19_v3.xls VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf <u>Verra Response</u> 1. The calculation $NL_{T,y}$ values is now included in a tab in the ER spreadsheet. 2. The W_{site} value has been adjusted accordingly 3. The average W_{site} for January 2023 have been adjusted as required 4. The justification for the -9% difference between the ex-ante and ex-post value is attributed to the number of animals. 5. Section 4.4 of the VR has bene updated indicating onsite electricity generation and use from solar panels. 6. Ex-post emissions reductions have bene updated to the latest versions of the spreadsheet 7. The ex-post values have bene corrected 8. Details of the inventory and the animal control system are now included as assessments in Section 4.4 of the verification report. 9. Equations have bene adjusted as needed 10. The MD_y equation has now been included in Section 5.4 of the MR. However, the same is not included in the verification report. The VVB must ensure all applied BEy, PEy and LEy, equations are correctly included and assessed in the VR 11. The ROUNDDOWN function is applied to both the baseline and project emissions. The VVB shall ensure the correction is done.	

	12. The VVB shall ensure that the round up function has been applied for project emissions in the BEy ex-post - PEy ex-post and ERy ex-post Excel spreadsheets. Program Rule(s) VCS Monitoring Report Template Version 4.4 Section 5.4 VCS Verification Report Template Version 4.4 Section 4.4 and Appendix 5	12. The ROUNDUP function is not applied for PEy emissions and shall be corrected accordingly **Round 2** VVB Response **1.** As explained in Round 1, the source of the information for the calculation of the parameter $N_{LT,y}$, which is presented in a consolidated manner in the Comparison $N_{LT,y}$ spreadsheet, is linked to the data recorded and demonstrated in the calculations in the BEy ex-post - PEy ex-post spreadsheet (for the case of the average in the monitoring period) of the same file ER Calculation MR02 - BCA-BRA-19_v3.xls. This addresses the points raised in the initial findings. Additionally, the baseline $N_{LT,y}$ parameter values were taken from the PD (Annex 3 of the registered PD). For this reason, this presentation has been maintained in this new version of the ER Calculation v.4 file. We reiterate that the average results can be found in forms 03.001 to 03.003 per site, named CONTAGEM DE ANIMAIS POR FASE DE CRIAÇÃO - NT,y, and are based on POP 03. This information is referenced in the database provided by Brascarbon to Icontec and cited in the references of Appendix 3 of the Verification Report. Additionally, they are available should Verra deem it necessary to review this detailed information. It is important to emphasize that this data is not included in the ER Calculation, mainly due to its impracticality, high density, and complexity of handling. Furthermore, Icontec confirms that the information from each form, per farm, was reviewed and verified, ensuring that the values obtained in the project for the NLT,y parameter—recorded for each farm and	

		expressed in the base forms—correspond to what is described by the PP in the ER Calculation. 10. The corresponding section in the Verification Report (VR) was adjusted and corrected, and the MDy equation was added. 11. The VVB confirms that the Project Proponent (PP) used the ROUNDDOWN function in the BEy ex-post - PEy ex-post spreadsheet, exclusively for the cell corresponding to TOTAL BEy ex-post in the period (t CO_2e) in the baseline calculation. This was corrected in the project emission calculations. 12. The VVB also confirms that the PP used the ROUNDUP function for the calculation of project emissions (PEy), which was properly corrected in the BEy ex-post - PEy ex-post spreadsheet See the following documents: -ER Calculation MR02 - BCA-BRA-19_v4.xls -VCS MR Project ID 4289 01012023-31122023_v4 clean.pdf -Brascarbon Methane Recovery Project BCA-BRA-19 v3_clean.pdf -VCS VerR Project ID 4289 01012023-31122023 v.4_round#2_clean.docx	
		<u>Verra Response</u> 10. The MD_y equation has been added, consistent with the Joint PD-MR and the applied methodology 11. No further action is required 12. No further action is required	

#	Finding Description	VVB Response	Status
7	**Data and parameters available at validation**		
	Issue 1. The baseline is described as an 'open lagoon', which is similar to the specified uncovered anaerobic lagoon in Table 10.17 in Chapter 10 of the 2019 IPCC Refinement values. However, the value of MCF_j value of 79% is not available in the relevant reference source, and the climatic zone of the same is not identified. 2. The assessment details of the MCF_j parameter including the referred climatic conditions in the Section 4.4 and Appendix 5 of the Verification Report. 3. In Section 4.1, the reference source for $VS_{default}$ is indicated wrongly. And the values might also slightly vary. The values for high PS are obtained from 10.13A (NEW) & 10A.5 of the 2019 Refinement to 2006 IPCC values for Latin America. Also, the values are not adjusted using equation 10.22A. 4. The values and the relevant reference source of $W_{default}$ parameter has not been included correctly in the Section 4.1 of the MR. 5. Section 4.1: The values for $W_{default}$ are also not in line with Table 10A.5 (NEW) of the updated 2019 Refinement IPCC values (59 Kg/205 Kg versus 50 Kg/198 Kg). Wrong IPCC reference in the parameter table itself, and wrong values. Action Required 1. The VVB shall ensure that the value of MCFj parameter is corrected in Section 4.1 of the MR and spreadsheet. And the climatic zone is also described to justify the selected value. 2. The VVB shall include the assessment details of the MCFj parameter including the referred climatic conditions in the Appendix 5 of the Validation Report. 3. The VVB shall ensure that the reference source and applied values for $VS_{default}$ parameter have been included correctly in the Section 4.1 of the MR. The VVB shall ensure the PP	**Round 1** VVB Response 1. For the parameter MCF_j, the methodology establishes that a reference factor can be used, but that 'alternatively' the IPCC can be used. In the 2019 refinement of the IPCC, Table 10.17 shows that in the case of projects, the value varies from 42% to 80%, primarily depending on environmental conditions. In this case, Brascarbon has estimated 79% as a conservative value compared to the estimate in the IPCC. 2. The parameter MCF_j is corrected regarding a formatting error in Appendix 5 of the VR, but the estimated value by the PP is not changed for the reason mentioned above. 3. The default parameter $VS_{LT,y}$, when referring to the PP from the PD - MR, mentions reviewing Tables 10A-7 and 10A-8. However, it actually corresponds only to Table 10A-7 of the IPCC because the 2019 refinement version places the information related to pigs exclusively in that table. Specifically, it mentions that 51% applies if liquid/sludge is used, or there is no data if a digester is used. Reasonably, the PP uses differentiated values such as 30% and 46%, which can be provided according to the age, weight, and condition or productive purpose of the type of pig production. 4. And 5. Regarding the parameter $W_{default}$ in Equation 3, it is indicated in the PD-MR that the data comes from the 2019 refinement of the IPCC in Table 10A.5, which refers to weights and states that the information was taken from the FAO statistical system, GLEAM, and is a simplified extract from the model database. Therefore, for this parameter, averaging between 50 kg and 198 kg	[Closed]

	includes an assessment why the values are not adjusted per equation 10.22A. 4. The VVB shall ensure that the values and the relevant reference source of $W_{default}$ parameter is corrected in the Section 4.1 of the MR. 5. The VVB shall include the assessment details of the applied values and relevant reference source of $W_{default}$ parameter in the Section 4.4 and Appendix 5 of the Verification Report. Program Rule(s) VCS Monitoring Report Template Version 4.4 Section 4.1 VCS Verification Report Template Version 4.4 Section 4.4 & Appendix 5	is valid and conservative concerning the proposed modelling. The PP complements its explanation in Section 4.1. Likewise, the VR adjusts formatting aspects in the appendix related to the explanation of the parameter. Adjustments were made to the description regarding the tables used for the parameters in the sections indicated by Verra, both in the monitoring and verification reports. Please refer to the following documents: VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf	
		Verra Response 1. The applied MCF value is still not justified. The VVB is required to ensure a correct MCF_j value is applied in line with the climate conditions of the project area and justified using a credible reference source per the updated 2019 IPCC values. The VVB shall include a detailed assessment of this value. 2. The VVB shall include a detailed assessment of the MCF_j value in Appendix 5 of the verification report. 3. The default VS reference is Table 10.13A (NEW) of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories for values corresponding to Western Europe as applied by the project. The VVB is requested to ensure correct values by the PP, and to include the correct assessments in its report. 4. The $W_{default}$ values applied for breeding and marketing swine are from the 2006 IPCC table 10A-7 and Table 10A-8 values since the same is not updated in the 2019 IPCC revision. However, the default VS values applied for Western Europe shall be from Table 10.13A and adjusted using equation 10.22 (NEW) from the 2019 IPCC values. The VVB must	

		ensure the corrections are effected and the verification report is updated accordingly 5. The referenced table for $W_{default}$ is still incorrect and shall be corrected with a note that the values are not updated in the 2019 Refinement to the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. The VVB shall further ensure that all deviations from the 2006 IPCC reference are included as deviations for subsequent verification	
		Round 2	
		VVB Response 1. The project used an MCF_j value of 79% for an uncovered anaerobic lagoon in a region with estimated temperatures between 23 and 26°C, corresponding to a temperate and warm climate. This information was obtained from the IPCC 2006, Chapter 10, Volume 4 - Table 10.17, p.10.45. The definition and application of this value align with the AMS-III.D.v.21 Small-scale Methodology, specifically in section 4.3 Baseline Emissions and 4.4 Project Activity Emissions. The project is located in the state of Mato Grosso do Sul, which has a predominant climatic zone of humid subtropical and tropical, with highly variable temperatures: January is the warmest month, with average maximum temperatures of 34°C and minimums of 24°C. July is the coldest month, with average maximum temperatures of 25°C and minimums that can drop to -2°C. According to the environmental authority of Mato Grosso do Sul, during the 2022 and 2023 period, temperatures ranged from 8°C to 40°C, with an average between 17°C and 28°C. Source: IMASUL - Environmental Quality Report 2022-2023 Considering that the IPCC references for this parameter depend on the project's site-specific climatic conditions and factors such as temperature, relative humidity, and the 2019	

		refinement, the IPCC suggests applying more detailed classification when determining the factor for a project. The classification includes: **Temperate** (warm humid and warm dry) **Warm** (tropical montane, tropical wet, tropical moist, tropical dry) Based on this classification, Project 19 falls between tropical wet and slightly closer to tropical moist. Therefore, the applicable value cannot be 76% or 80%, as mentioned in the table. In conclusion, the PP follows the recommendations of the methodology, and the guidance provided in the IPCC, which were initially recorded in the PD-MR and served as the basis for the project's validation and first verification approval. 2. The evaluation mentioned above regarding the MCF_j value is included in Appendix 5 of the Verification Report. 3. The Project Proponent (PP) conducted two analyses in response to Verra's comments and submitted the adjusted Monitoring Report (MR) using the version based on the 2006 IPCC Guidelines, along with the corresponding Excel calculations. Additionally, a second calculation file was provided using the evaluation model applying Table 10.13A from the 2019 Refinement to the 2006 IPCC Guidelines. The final default VS values in this new version result in higher emission reductions for the project (ERy, ex-post 56,064 tCO2e). Icontec submits both versions prepared by the PP, which are attached to this response. However, considering that the first version produces more conservative data (ERy, ex-post 52,511 tCO2e), it is deemed appropriate to accept the version originally proposed by Brascarbon in MR v.4. Accordingly, the VR has also been adjusted to reflect version 4 of the MR and its associated ER calculations.	

		4. Regarding the $W_{default}$ parameter, the Project Proponent (PP) confirmed the values applied for breeding and marketing swine are based on Tables 10A-7 and 10A-8 of the 2006 IPCC Guidelines, as these have not been updated. In the case of the default VS values applied for Western Europe, the PP referred to Table 10.13A from the 2019 Refinement to the 2006 IPCC Guidelines. The VVB confirms that the PP prepared a new version of the ER calculations, which is attached to this response for Verra's review. In the meantime, Icontec considers the values obtained in calculation sheet version 4 to be prudent and conservative, as they reflect average live weights for swine production systems relevant to the project context and are aligned with the default values presented in the 2006 IPCC Guidelines. The PP included this clarification in Section 4.1 of the MR, and the VVB verified that the selection and application of these values are appropriate and conservative within the applied modelling approach. 5. Icontec confirms that Brascarbon corrected the reference table for Wdefault in the MR with a note stating that the values are not updated in the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Likewise, the VVB prepared a FAR to ensure that all deviations from the 2006 IPCC reference are included as deviations for subsequent verification. Please refer to the following documents: ER Calculation MR02 - BCA-BRA-19_v4.xls -VCS MR Project ID 4289 01012023-31122023_v4 clean.pdf -Brascarbon Methane Recovery Project BCA-BRA-19 v3_clean.pdf	

		-VCS VerR Project ID 4289 01012023-31122023 v.4_round#2_clean.docx ER Calculation MR02 - BCA-BRA-19_v4_VS_Scenario 1_table 10_13A.xls $VS_{default}$ Scnearios.xlsx	
		Verra Response 1. The MCF value is justified as conservatively sourced from Table 10.17 of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2. The MCF_j value is supplemented in Appendix 5 of the verification report. 3. The more conservative $VS_{default}$ values applied are from the 2006 and now referenced as such, in line with the Joint PD-MR. 4. The $W_{default}$ values applied for breeding and marketing swine are based on Tables 10A-7 and 10A-8 of the 2006 IPCC Guidelines. The $VS_{default}$ issue is addressed in point 3 above 5. The source of the $W_{default}$ values ha been adjusted accordingly	

#	Finding Description	VVB Response	Status
8	**Monitored parameters and the monitoring plan:**		
	Issue 1. The details of the installed monitoring equipment including the serial number, manufacturer, brand/model etc. have not been included in the Section 4.2 of the MR. 2. It is not clear in the Section 4.2 of the MR why only weights for finishers within the context of W_{site} has been monitored and considered in the ex-post calculations. 3. It is not clear in the Section 4.2 of the MR why no error value has been applied for W_{CH4} and T_{biogas} parameters considering that the calibration validity expired for most of the referred farms before the end of this monitoring period.	**Round 1** VVB Response 1. The details of the equipment used are provided in Section 4.2, including the parameters P_{biogas}, T_{biogas}, W_{CH4}, $BG_{Burnt,y}$, and T_f. Additionally, Icontec received the calibration records of the equipment, which were verified in-office with the corresponding documentation and photographic records submitted by the PP for this verification period. 2. It was adjusted and supplemented by the PP in MR v.3 3. The equipment calibration covers the 2023 period and even	[Closed]

	4. The annual average temperature of baseline site where anaerobic manure treatment facility is located has not been included in the Section 4.2 of the MR to determine the minimum monthly temperature in line with the applicability condition 3 c) of the applied methodology. 5. The calibration details of the monitoring equipment including the calibration date, responsible entity/organization, validity period etc. have not been included in the Section 4.2 of the MR. 6. The sampling details of W_{site} parameter have been included inconsistently in the Sections 4.2 and 4.3 of the MR. (i.e. 100% vs quarterly sampling). The Table 5 in Section 4.3 indicate the parameter is measured 100%. 7. The inclusion of parameters not available in the Section 4.2 of the MR is not clear in the Section 4.3 of the Monitoring Report. (e.g. $SVS_{jLT,y}$ and $Q_{manure\ LT,y}$). SVS and W_{manure} are not required in this project. 8. The procedures used for handling any internal auditing performed and identified non-conformities have not been included in the Section 4.3 of the Monitoring Report. <u>Action Required</u> 1. The VVB shall ensure that the details of the monitoring equipment including the serial number, manufacturer, brand/model etc. have been included in the Section 4.2 of the MR. 2. The VVB shall ensure that why only weights for finishers within the context of W_{site} parameter is monitored and included in the calculations has been clarified and explained in the Section 4.2 of the MR and shall include its assessment details about the same in the Section 4.4 of the Verification Report. 3. The VVB shall ensure that the relevant error value has been applied for W_{CH4} and T_{biogas} parameters in the Section 4.2 of the MR considering that the calibration validity expired for	extends beyond the presented monitoring period. For instance, in the case of thermocouples, the PP provides two or even three calibrations when a new device is installed or when prior calibration dates do not cover the implementation period, ensuring the equipment remains calibrated and operational. Regarding the bioanalyzer, it is important to note that the equipment is rotated and not exclusively used at a single project site. Certifications are issued on different dates, ensuring that, if one device's calibration expires, another device with valid calibration is used. For the W_{CH4} parameter, POP 5 explains the equipment's use, while POP 06 details T_{biogas}. Additionally, Icontec received the calibration records of the equipment, which were verified in-office with the corresponding documentation, Form 04 field reports for each site or farm, and photographic records submitted by the PP for this verification period. 4. The project measures and monitors the temperature at the flare, as explained in the methodology. This refers to the flame temperature as per Tool 6 and is described in Section 5.2 (Project Emissions) of the MR. The critical factor is the second-by-second recording of methane combustion, ensuring the combustion reference does not fall below 500 degrees Celsius. This is further detailed in the parameters T_f, FE, $N_{flare,h}$, and $SPEC_{flare}$. 5. This point is addressed through the responses provided in items 1–4 of this finding. 6. In the MR, the PP describes the W_{site} parameter in Section 4.2, stating that 100% of sampling relates to analysing all data obtained at each site. In Section 4.3, the reference pertains internally to the project sites, i.e., the farms monitored internally by ASSUGLORIA, the cooperative managing swine production. This cooperative has a standard practice of sampling animal weights, a method that reduces animal stress and ensures proper monitoring. 7.The PP corrects the consideration of parameters in the MR.	

	most of the referred farms before the end of this monitoring period and shall include its assessment details about the same in the Section 4.4 of the Verification Report. 4. The VVB shall ensure that the annual average temperature of baseline site has been included in Section 4.2 of the MR to determine the minimum monthly temperature in line with the applicability condition 3 c) of the applied methodology. Justification for considering ndy as 365 shall be included. 5. The VVB shall ensure that the calibration details of the monitoring equipment including the calibration date, responsible entity/organization, validity period etc. have been included in the Section 4.2 of the MR. 6. The VVB shall ensure that the sampling details of W_{site} parameter have been included consistently and correctly in the Sections 4.2 and 4.3 of the MR and shall include its assessment details about the same in the Section 4.4 of the Verification Report. 7. The VVB shall ensure that the data/parameters not available in the Section 4.2 of the MR have been excluded in the Section 4.3 of the Monitoring Report. 8. The VVB shall ensure that the procedures used for handling any internal auditing performed and identified non-conformities have been included in the Section 4.3 of the MR. The VVB shall include its assessment in the Section 4.4 of the Verification Report. <u>Program Rule(s)</u> VCS Monitoring Report Template Version 4.4 Sections 4.2 & 4.3 VCS Verification Report Template Version 4.4 Section 4.4	8. Internal audit procedures under POP 26 are referenced in Section 4.3 of the MR and in Section 4.4 of the VR as indicated. 9. And 11. The PP includes emergency management measures for each piece of equipment involved in the project implementation, as well as for the parameters requiring measurement. Each POP includes a chapter on emergency management, as well as activities related to calibration, monitoring, and management of the equipment. However, the PP explains these aspects in Section 4.3 of the MR. Please refer to the following documents: • ER Calculation MR02 - BCA-BRA-19_v3.xls • VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf • VCS VR Project ID 4289 01012023-31122023_v3 clean.pdf <u>Verra Response</u> 1. Details of monitoring equipment are now included in the respective parameter tables in Section 4.2. 2. The finding is not resolved. The VVB shall ensure the monitoring of breeding and market swine W_{site} values are clearly reported in Section 4.2 of the MR, and the sampling is in line with the provisions of AMS-III.D for this value. The average values monitored shall be included in the parameter table, and not texts related to wastewater. 3. The VVB has confirmed that all monitoring equipment are calibrated per the recommended schedules. 4. The finding is not resolved 5. The finding remains unresolved 6. The VVB has confirmed 100% check for W_{site} is implemented by the project activity 7. Unnecessary parameters have been excluded 8. Procedures are now included **Round 2**	

		VVB Response 2. In understanding Verra's request, it is important to clarify that the Project Proponent (PP) has complied with the guidance set forth in methodology AMS-III.D. version 21, which states that monitoring must reflect the actual conditions and operational practices of the project. In this case, the project comprises 10 sites or farms, and of these, only one site – Lote 23 Quadra 27 - SITE ID BCA-323MS1-19 – includes a full production cycle, as defined in the PD and MR. The remaining nine sites operate exclusively as swine finishing units. According to the definition of the W_{site} parameter in the methodology, this represents the average animal weight of a defined livestock population at the project site (kg). Although the suggested monitoring frequency is annually, due to the predominance of the finishing stage across the farms, this parameter is monitored quarterly (based on sampling following ASSUGLORIA's internal procedure) and at the full weight of each batch of pigs every time it leaves the farms (each batch stays around 5 to 6 months per farm). This approach allows for greater accuracy in the information collected. The data presented were collected during field visits (PD-MR) and through the monitoring (MR) activities carried out by the Brascarbon technical team, in coordination with the project sites. This information was also provided and validated with records from Assugloria, the company that operates and oversees the participating sites. As explained in the description of the Wsite parameter – Section 4.2 of the MR and Appendix 5 of the VR. 4. In compliance with applicability condition 3(c) of methodology AMS-III.D version 21, the Project Proponent (PP) confirms that the project site presents suitable climatic conditions for anaerobic methane generation in the baseline scenario. Specifically, meteorological data obtained from IMASUL and INMET	

		for the project location indicate that the minimum monthly average temperature remains above 5°C throughout the year, which supports the validity of the methodology's applicability condition. Based on this, it is appropriate to consider ndy = 365, as methane would be continuously generated in the absence of the project activity. This assumption aligns with paragraph 16(c) of AMS-III.D v.21. It is important to highlight that the project focuses on methane recovery and destruction through biogas flaring systems, and the emission reductions are based on actual monitored destruction of methane. Nonetheless, to fully comply with the methodology, the MR has been updated to include this temperature justification in Section 4.2 https://portal.inmet.gov.br https://mapas.inmet.gov.br/# 5.Due to a misinterpretation, Icontec initially responded to this request mainly through responses 1 and 3. However, for greater clarity, we provide the following explanation: The calibration details of the monitoring equipment, including the calibration date, responsible entity/organization, validity period, etc., have indeed been included by the Project Proponent (PP) in Section 4.2 of the MR since the earliest versions of the document. The calibration records, including calibration certificates of the instruments used for project implementation, are valid and updated within the required period according to the equipment's characteristics and the manufacturer's recommendations. In the Monitoring Report, the PP presents consolidated information on the equipment, including calibration certificates, the last calibration date, and the calibration expiration date, ensuring that the monitoring period is covered with properly	

		calibrated equipment. This can be found in the report under parameters such as: Pbiogas, Tbiogas, WCH4, BG burnt,y, and Tf. Additionally, Brascarbon provides the base information for the project verification. In this regard, Icontec has the Excel files with the records collected by the operational technician who visits each project, checks the status of the equipment or instruments on-site, gathers information, and sends it to the Brascarbon office for consolidation and analysis. Among the forms used in the field are: Form 01.001, 13.001, 04.001, 05.003, and 12.001-4 Likewise, the records are accompanied by Project Operational Procedures (POP) according to the company's management system—Brascarbon Operation Procedures Manual. Calibration records are available for various components such as digesters, flares, measuring systems, piping, and electrical parts, with POPs including: POP 01 – for thermocouples from supplier ALUTAL – data collector pen drive – PLC (Programmable Logic Controller) POP 04 – Flow meter: ENDRESS+HAUSER, FLOW MONITOR – PLC POP 13 – Biogas Analyzer Calibration Control – LANDTEC POP 12 – General maintenance of instruments Brascarbon also provides Icontec with copies of the certificates and serial numbers of new equipment versions in the case of field equipment updates, including: Thermocouple, Flow Meter, Biogas Analyzer, and Flow Meter Declaration. Please refer to the following documents:	

		ER Calculation MR02 - BCA-BRA-19_v4.xls -VCS MR Project ID 4289 01012023-31122023_v4 clean.pdf -Brascarbon Methane Recovery Project BCA-BRA-19 v3_clean.pdf -VCS VerR Project ID 4289 01012023-31122023 v.4_round#2_clean.docx	
		Verra Response 2. It has now been clarified that W_{site} values are measured 100% for each incoming and leaving batch and animal category (Table 5 in Section 4.3) on a quarterly bais. The values are similar to the approved values in the JPD-MR and the assessment is included in the verification report. 4. It has now been adequately demonstrated that the minimum monthly average temperature remains above 5°C throughout the year 5. Measurement equipment and QA/QC procedures are included in Section 4.2 where applicable	

#	Finding Description	VVB Response	Status
9	**Determination of $PE_{power,y}$**		
	Issue In the registered PD (page 2), it is stated that 'A derivation pipe will be installed before the flare and after the flow meter, for future proposals, to supply biogas to the electricity generators, for in site electricity supply where no claims for emissions reductions by the electricity generation will be requested during the entire Project activity….'. This implies that grid electricity consumption is required, at least until the generators are installed. However, in page 57 of the same VCS-PD, $PE_{power,y}$ is indicated as = 0, without justification. However, in the table in Section 3.3, under project boundary emissions, it is stated as 'yes', under 'Emissions from onsite electricity use'.	**Round 1** VVB Response The energy source used at each of the project sites is based on solar panels—self-sufficient and sustainable. This is mentioned in the project description in both the Monitoring Report (MR) and the Verification Report (VR). Additionally, in VR v.3, further details are provided according to Finding 6.5 mentioned above. No changes are made; please refer to sections 4.3 and 4.4 of the VR. Please refer to the following documents:	[Closed]

	It is unclear how the project operated without grid electricity during this monitoring period Action Required The VVB is required to explain how it checked that there was no grid electricity consumption during this monitoring period. Program Rule(s) VCS Monitoring Report Template Version, Section 5.2 VCS Verification Report Template Version, Section 4.4	VCS MR Project ID 4289 01012023-31122023_v3 clean.pdf VCS VerR Project ID 4289 01012023-31122023 v.3 clean.pdf	
		Verra Response The VVB confirmed the presence of solar panels for project consumption at the premises and hence, justified that $PE_{power,y}$ = 0	
		Round 2	
		VVB Response	
		Verra Response	